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NTSB Order No. EA-4541

UNITED STATES OF AMERICA
NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C.

Adopted by the NATIONAL TRANSPORTATION SAFETY BOARD
at its office in Washington, D.C.
on the 11th day of April, 1997

BARRY L. VALENTINE, Acting Administrator, Federal Aviation Administration, Complainant, v. REGIS FERDINAND BURKET, Respondent.	)	Docket No. SE-13925

OPINION AND ORDER

Respondent appeals from the oral initial decision of Chief Administrative Law Judge William E. Fowler, Jr., issued following an evidentiary hearing on June 28, 1995.[1] By that decision, the

[1] An excerpt from the hearing transcript containing the oral initial decision is attached.

(continued . . .)

law judge affirmed the regulatory violations alleged by the Administrator, but modified the Administrator's order of a 90-day suspension of respondent's airframe and powerplant ("A&P") mechanic certificate to a 60-day suspension.[2] On appeal, respondent, a USAir, Inc. ("USAir") mechanic, challenges the law judge's finding that he committed the charged violations.[3] We deny the appeal.

This case involves maintenance performed under respondent's direction on a Boeing 767 aircraft, N654US, on May 18th and 23rd,

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[2] Respondent was charged with violating sections 43.13(a) and (b) of the Federal Aviation Regulations ("FAR," 14 C.F.R. Part 43). FAR section 43.13 states, in relevant part, the following:

> (a) Each person performing maintenance, alteration, or preventive maintenance on an aircraft, engine, propeller, or appliance shall use the methods, techniques, and practices prescribed in the current manufacturer's maintenance manual or Instructions for Continued Airworthiness prepared by its manufacturer, or other methods, techniques, and practices acceptable to the Administrator, except as noted in § 43.16. He shall use the tools, equipment, and test apparatus necessary to assure completion of the work in accordance with accepted industry practices. If special equipment or test apparatus is recommended by the manufacturer involved, he must use that equipment or apparatus or its equivalent acceptable to the Administrator.
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> (b) Each person maintaining or altering, or performing preventive maintenance, shall do that work in such a manner and use materials of such a quality, that the condition of the aircraft, airframe, aircraft engine, propeller, or appliance worked on will be at least equal to its original or properly altered condition (with regard to aerodynamic function, structural strength, resistance to vibration and deterioration, and other qualities affecting airworthiness.)

[3] The Administrator did not appeal the reduction in sanction.

1994, following pilot complaints about horizontal stabilizer trim control. We will deal with each occasion separately. The evidence at the hearing established that on May 18th respondent found that the connector plug that connected electrical wiring from the left horizontal stabilizer trim cutout switch ("cutout switch") in the cockpit to the horizontal stabilizer trim system's left hydraulic pressure shut-off valve ("shut-off valve") in the tail of the aircraft was corroded, with the result that the left shut-off valve circuit breaker in the cockpit would not remain reset from the popped position. While no replacement connector plug was available, respondent, following consultation with other USAir personnel within the carrier's Maintenance Control and Engineering departments, mistakenly determined that the aircraft could be temporarily operated, pursuant to Minimum Equipment List ("MEL") 27-4102, with the connector plug disconnected and removed.[4] On appeal, it is undisputed that while MEL 27-4102 does permit one of two horizontal stabilizer primary trim channels to be inoperative, it does not permit an

[4] MEL 27-4102 permits an aircraft to be returned to service even though one of two horizontal stabilizer primary trim "channels" is inoperative. Use of MEL 27-4102 to return an aircraft to service is conditioned upon, among other things not pertinent here, accomplishment of Special Procedure 27-4102. A copy of Special Procedure 27-4102 is attached to this opinion.

inoperative shut-off valve in the horizontal stabilizer trim system.[5]

The Administrator's position is that respondent should have realized that he could not accomplish Special Procedure 27-4102 -- as required in order to comply with MEL 27-4102 -– because, among other things, it required him to shut off left hydraulic pressure to the horizontal stabilizer trim system by positioning the left cutout switch to "cutout." However, since, with the connector plug removed, the left cutout switch could no longer regulate the supply of left hydraulic pressure to the horizontal stabilizer trim system, it should, the Administrator maintains, have been apparent to respondent that Special Procedure 27-4102 could not be performed.

Respondent contends that he did properly accomplish Special Procedure 27-4102, insisting that the "whole purpose" of that procedure "is to confirm the nonfunctionality of the system." Respondent's Brief at 7. We disagree. The Administrator, through his maintenance inspector witnesses and documentary

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[5] As a consequence of respondent's actions on May 18th, the aircraft was flown on ten trans-Atlantic flights in an unairworthy condition because the left cutout switch was inoperative. The USAir B-757/767 Pilot's Handbook indicates that in the event of uncommanded horizontal stabilizer trim movement (i.e., "runaway trim") the flight crew is to position the left and right cutout switches to "cutout." Administrator's Exhibit A-9. Thus, the flight crew would not have been able to shut off left hydraulic fluid supply to the horizontal stabilizer trim system in the event of uncommanded horizontal stabilizer trim movement.

evidence, persuasively established that an A&P mechanic exercising the appropriate degree of care, judgment and responsibility would have recognized that removal of the connector plug precluded, for the reasons discussed above, accomplishment of Special Procedure 27-4102.[6] We do not think any unreasonable burden is placed on a mechanic by the Administrator's expectation, consistent with the maintenance standards reflected in the regulations cited in this case, that he or she in performing maintenance will be alert to factors encountered along the way that may dictate a reassessment of original judgments over the nature or cause of a discrepancy and the proper way to correct or address it.

Respondent's contention that it is common practice to confirm nonfunctionality of a system which a mechanic knows he has just disabled is unavailing, for, as even the examples cited in respondent's brief demonstrate, whenever a system is to be intentionally disabled pursuant to an MEL, the associated procedure will specifically instruct a mechanic to test the disabled system to confirm its nonfunctionality. Special

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[6] Among other things, the special procedure contemplates the availability of electrical power for the diagnostic checks it prescribes. However, with the connector plug removed, no current could pass from the left cutout switch to the left shut-off valve. Thus, step 5-E, for example, of Special Procedure 27-4102 could not be performed, for that step requires shutting off the left horizontal stabilizer primary trim system via the left cutout switch in order to check the functionality of the right horizontal stabilizer primary trim system.

Procedure 27-4102 contains no such provision. Moreover, an A&P mechanic exercising the requisite care and judgment would have appreciated that the purpose of Special Procedure 27-4102 was to locate failures of arming valves or control arms in order to pinpoint the location and cause of a horizontal stabilizer trim system problem. The fact that respondent found "no failure on either the left or right side stabilizer trim" (Administrator's Exhibit A-17) should have alerted him to the need to reconsider his selection of MEL 27-4102.

Respondent also contends that MEL 27-4102 was misleading because the diagrams it referenced gave respondent an erroneous, but reasonable, impression that the shut-off valve was part of the horizontal stabilizer primary trim "channel." Accordingly, he argues, because MEL 27-4102 permits returning an aircraft to service with one such "channel" inoperative, it was reasonable to conclude it was permissible to return the aircraft to service with the left shut-off valve disabled.[7] However, because we conclude that Special Procedure 27-4102 was not accomplished, and

[7] We note, in this connection, that MEL 27-4102 was after this incident rewritten to reduce the possibility of a similar misunderstanding occurring in the future. Tr. at 202. Unlike respondent, we do not view this factor as compelling a judgment that respondent should be excused for his mistake in using the wrong MEL.

accomplishment is required in order to utilize MEL 27-4102, we need not reach this issue.[8]

We turn now to respondent's actions on May 23rd. Evidence at the hearing established that in response to a pilot complaint that the left cutout switch was inoperative,[9] respondent positioned the left shut-off valve's manual override lever to the closed position -- effectively guillotining the left hydraulic pressure supply to the horizontal stabilizer trim system -- and again returned the aircraft to service under MEL 27-4102.[10] This

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[8] Respondent, after noting that the law judge characterized MEL 27-4102 as "flawed" -- a statement we take to mean that MEL 27-4102 did not define the scope of the word "channel" -- argues that respondent correctly applied the MEL and that for the law judge to "jump from compliance with a flawed MEL to a regulatory violation is illogical and unreasonable." Respondent's Brief at 6. Respondent misconstrues the issue, however, for his culpability stems not from his initial conclusion that the shut-off valve was part of the primary trim "channel," but from his subsequent failure to recognize that he could not accomplish Special Procedure 27-4102 and that, therefore, use of MEL 27-4102 was inappropriate.

[9] We are concerned with respondent's apparent failure, after the maintenance performed on May 18th, to alert the cockpit crew that the left cutout switch -- a red-guarded emergency switch -- was inoperative.

[10] In a letter to the FAA, respondent indicated that his repositioning of the shut-off valve manual override lever to the closed position on May 23rd "allowed the flight crew to cut-off in the unlikely event of runaway trim." Administrator's Exhibit A-17. In fact, however, because the left cutout switch was inoperative due to respondent's removal of the connector plug on May 18th, the flight crew had no capability to shut off left hydraulic pressure supply to the horizontal stabilizer trim system. We also note that because respondent's actions on May 23rd shut off left hydraulic pressure supply to the horizontal stabilizer trim system, it would have been impossible for him to comply with MEL 27-4102 and Special Procedure 27-4102 which

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lever, however, which is located in the tail section of the aircraft, is designed for temporary use while performing shut-off valve-related maintenance, and is to be closed only while the aircraft is on the ground. The only procedures which direct a mechanic to reposition this lever are those related to removal or installation of a shut-off valve motor. Administrator's Brief at 13.[11] Respondent acted outside the scope of any procedures contained in the FAA-approved maintenance manual, and the action he performed was, essentially, an improvisation that adversely affected the level of safety the aircraft was designed to provide. We also note that, given respondent's assertion that he performed Special Procedure 27-4102 on the 18th in order to confirm that the left primary horizontal stabilizer trim channel was inoperative, the fact that a pilot reported a problem with the same, supposedly disabled system several days later should

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explicitly require that the alternate trim systems be operable. Had respondent attempted to operate the horizontal stabilizer trim while center hydraulic pressure (the B-767 horizontal stabilizer trim system uses the left and center hydraulic systems) was secured, as Special Procedure 27-4102 requires, presumably he would have noticed that neither the primary trim switches nor the alternate trim switches had any effect.

[11] As a consequence of respondent's action on May 23rd, the aircraft was flown on two trans-Atlantic flights with only the center hydraulic system supplying hydraulic pressure to the horizontal stabilizer trim system. The aircraft's system redundancy -- especially critical on extended over-water flights -- was compromised. If there had been a problem with the supply of center hydraulic pressure, the flight crew would have been unable to trim the horizontal stabilizer.

have alerted respondent to the possibility that his use of MEL 27-4102 was inappropriate.[12]

[12] Respondent, presumably referring to the MEL, asserts that "the regulation [is] unconstitutionally vague under [the Administrator's] interpretation" because it, in the respondent's view, "impose[s] a duty to insure that the MEL is correct in the procedures that it orders and . . . to supersede or deviate from those procedures when the mechanic deems it necessary," and concludes that "nothing in the regulations . . . suggest that [respondent] had any duty other than compliance with . . . MEL 27-4102 and [S]pecial [P]rocedure 27-4102." Respondent's Brief at 11-12. Respondent also makes an estoppel argument, based on the premise that he fully complied with the prescribed procedures, he should not be held liable when he is in "strict compliance" with a flawed procedure. Respondent's Brief at 14. Apart from the fact that the MEL was written by the carrier, not the Administrator, we find both of these arguments to be without merit, for, as we have already explained, respondent did not comply with Special Procedure 27-4102.

ACCORDINGLY, IT IS ORDERED THAT:

1. Respondent’s appeal is denied; and

2. The order of suspension and the initial decision are affirmed.

HALL, Chairman, FRANCIS, Vice Chairman, HAMMERSCHMIDT, and BLACK, Members of the Board, concurred in the above opinion and order. GOGLIA, Member, did not participate.

USAir
Boeing 767
MEL Special Procedures
27-4102 Horizontal Stabilizer Primary Trim Channels

MAINTENANCE

1. Provide electric power[].

2. Provide left and center hydraulic systems power [].

   WARNING: KEEP PERSONNEL AND EQUIPMENT CLEAR OF ALL CONTROL SURFACES TO PREVENT INJURY OR DAMAGE.

3. Check that LEFT and CENTER STAB TRIM SHUTOFF VALVE C/Bs [] are closed.

* * * *

5. Check that horizontal stabilizer operates normally by [] Electric Alternate Trim Switches.

   D. Place left stabilizer trim shutoff valve switch on control stand in NORM and right stabilizer trim shutoff valve switch in CUTOUT.

      1) Move either captain’s or first officer’s stabilizer trim control switches on control wheel up and down. If stabilizer does not move in one direction as commanded, the arming valve or control valve associated with the failed commanded movement is inop in the left stabilizer trim control module [].

      2) Move both stabilizer [] Electric Alternate Trim Switches on control stand full forward and full aft, and check that stabilizer leading edge moves up and down.

   E. Place left stabilizer trim shutoff valve switch in CUTOUT and right stabilizer trim shutoff valve switch in NORM.

      1) Move either captain’s or first officer’s stabilizer trim control switches on control wheel up and down. If the stabilizer does not move in one direction as commanded, the arming valve or control valve associated with the failed commanded movement is inop in the right

stabilizer trim control module [].

2) Move both stabilizer []Electric Alternate Trim Switches on control stand full forward and full aft, and check that stabilizer leading edge moves up and down.

F. Place left trim shutoff valve in NORM.

G. If left stabilizer trim control module [] is inoperative, placard the L autopilot channel - “INOP”.

H. If right stabilizer trim control module [] is inoperative, placard the R autopilot channel - “INOP”.

6. Remove electric and hydraulic power.